

Case Study



> Epson

Epson Telford Ltd, part of the Seiko Epson Corporation, manufactures and distributes printer supplies and media products throughout Europe from its base in Shropshire. Airedale's air conditioning products are playing a major role in the precise control of temperature and air quality in critical areas and clean rooms at the Shropshire facility. Epson has developed a positive partnership with Airedale to ensure maximum performance and energy efficiency through ongoing system development and maintenance.



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Epson Telford Requirements

The 42,000 m² plant in Shropshire is Epson's sole European manufacturing site and employs 1,100 staff involved in plastic injection moulding and ink cartridge assembly in clean rooms where continuous system operation requires a 24/7 precise cooling capability that is both efficient and reliable.

Air conditioning plays a major role in the Epson manufacturing facility. Computers and machinery in the clean rooms need to be kept at 22°C to remain in optimum working condition. Keeping them at this precise temperature is difficult to maintain in a room filled with people and machinery. Air quality is also a major priority making it imperative that all the components and equipment are free from dust and debris from the air.

Service Criteria

Such critical control of both temperature and air quality, demands a totally reliable system. Airedale has provided a chiller system supplying cooling to close control and comfort units, backed up by high-level technical support which puts a qualified engineer on site within hours, day or night. Now Epson is seeking more than just a first class after-sales service aligned with a regular maintenance programme.

With the cooling load on site increasing, Epson has superseded two existing standard chillers with new free-cooling chiller technology available from Airedale, that will expand system capability at the same time as cutting energy costs. Epson's vision to see beyond initial capital expenditure to reducing payback period through substantial energy saving, requires a service partnership that enables Epson to develop and harness the full potential of its investment.

Positive Partnership

"We are looking at making our kit work through a positive, responsible partnership with Airedale in which we share knowledge," says Paul Lovegrove, General Affairs Assistant Manager at Epson Telford. "We don't simply install units and let them run neither does Airedale just service and maintain. It's a step on from supply only. Airedale help make the equipment work for us."

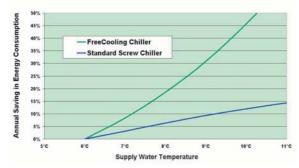
Significant Energy Savings

Airedale and Epson are working in partnership to fine-tune three Ultima FreeCool chillers to their environment, for example by increasing supply and return water temperature to utilise free-cooling for a greater part of the year. The free-cooling cycle is designed to give priority to free-cooling whenever the external ambient is below the return water temperature, cutting back the need for mechanical cooling and reducing the energy consumption of the chiller. Monitoring valve positions of indoor units and adjusting water temperatures can enable the system to achieve maximum free-cooling benefits.

"It's only through Airedale's continued site involvement that we can fine-tune the system to this extent. We expect it to achieve significant savings. We don't mind spending capital expenditure to recoup energy savings such as these," says Paul.



Energy Savings from Increasing Chilled Water Setpoint







Manufacturer on Site

"We have retained the maintenance contract because it's akin to having the manufacturer on site. It also means that any upgrades Airedale do on the control side, such as improved strategies, we can download them. With the help of Airedale's intelligent AireWorks BMS and their maintenance team we can also see which units are 'hot spots' and deal with them."

"In working with Airedale, I'm moving with technology to give my customers in manufacturing and the call centre a better product and fewer breakdowns and I trust Airedale to do that. Absolute trust in our service and maintenance team is essential."

Airedale's unique AireTronix controls strategy, developed on site, puts Epson ahead of the field in operating free-cooling on three separate chillers linked to the same circuit. This enables them to make maximum use of the environment, with an option for mechanical cooling to top up any of the three chillers.

"It's a complete partnership from design through to service and maintenance, developing the equipment long after installation, fine tuning it to our needs. There is a definite advantage in having the manufacturer handle maintenance. It gives us access to Airedale's expertise and technical knowledge."

Service Specification

Airedale engineers provide an immediate response, 24/7 call-out service throughout the year, enabling Epson to contact a qualified engineer outside of normal working hours. Assistance can be given over the telephone but the enhanced service received by Epson means that a duty engineer is on call to attend site usually within 24 hours or within 4 hours if required. If the problem cannot be fixed straight away, the engineer will return in a very short lead time and, as a maintenance customer, Epson has priority.

Maintenance Package

Epson has a Chillerguard Gold contract including four maintenance inspection visits a year, each of nine days' duration; all consumables required for maintenance and an extended parts and labour warranty, with genuine ex-stock spares available. Equipment covered under the contract includes twenty chilled water close control units, three Ultima FreeCool chillers and eighteen chilled water cassettes.

"We require a service which delivers technical support whenever we need it and regular maintenance to protect not only our investment, but also our manufacturing facility as a whole."

Chillerguard

Airedale's Chillerguard Gold contract includes:

- > Four maintenance inspection visits
- > All travel and mileage expenses related to the maintenance visits
- > All consumable required for the maintenance (cleaning fluids, lubricants, etc)
- > All parts during the contract period
- > All costs related to service call-outs and repairs during the contract period

Airedale is able to utilise Airedale's extensive knowledge and experience as a leading manufacturer, to provide documented, planned maintenance visits and programmes to suit all of Airedale's own equipment ranges, as well as those of other leading industry manufacturers.

Chillerguard Gold is one of four standard maintenance packages offered by Airedale.







> For the latest information on Airedale please visit : www.airedale.com

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